



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/342,453 | 06/29/1999 | EDGAR J. ST. PIERRE | E0295/7100/R | 6555 |

7590

04/19/2004

ROBERT PLOTKIN
C O WOLF GREENFIELD AND SACKS PC
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 022102211

| |
|----------|
| EXAMINER |
|----------|

THAI, TUAN V

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2186

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/342,453

Applicant(s)

ST. PIERRE ET AL.

Examiner

Tuan V. Thai

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 40-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 25-28, 30-34 and 36-39 is/are rejected.
- 7) ☒ Claim(s) 24, 29 and 35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2186

Part III DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's communication filed February 9, 2004. This amendment has been entered and carefully considered. Claims 1-39 remain pending in the application. Claims 40-56 have been cancelled.

2. Applicant's arguments with respect to claims 1-23, 25-28, 30-34 and 36-39 have been fully considered but they are not deemed to be persuasive.

Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-23, 25-28, 30-34 and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (USPN: 5,778,395); hereinafter Whiting;

Art Unit: 2186

As per claims 1, 7, 13, 20, 30-31, 36, 37 and 38; Whiting, in his teaching of system for backing up files from disk volumes on multiple nodes of a computer network, discloses the invention as claimed including copying only a subset of the backup data onto at least one computer-readable duplicate backup storage medium as duplicate backup data so that the duplicate backup storage medium is not an exact duplicate of the at least one backup storage medium is being equivalently taught by Whiting as after the initial backup on a particular volume (disk space), ONLY files which have changed since the previous backup are actually read from the volume and stored on the backup storage (emphasis added, e.g. see abstract, column 5, lines 7 et seq.). Whitting teaches the invention as claimed with one exception that he does not specifically teach copying/backing-up only a subset of the backup data *from the at least one backup storage medium* as being amended. First of all, it should be noted that, Whitting clearly disclose the INCREMENTAL DATA BACKUP wherein backing-up only changed data from previous backing up could have been happened from either (a) the original storage medium or (b) the back-up storage medium. Even though Whitting does not specifically disclose as to where the comparison of data would be made for determining the change of data, one would readily recognize that memory access operation from smaller memory storage capacity would yield faster response time. Accordingly,

Art Unit: 2186

it would have been obvious to one having ordinary skill in the art at the time the current invention was made to readily recognize, realizing and to implement the incremental backup operation from the backup storage medium; in doing so, it would yield quicker response time, reducing access latency since backup storage medium known to has smaller data storage capacity as being compared to the original data source; therefore being advantageous.

As per claims 2-3, 8-9; 14-16; Whiting discloses copying a subset of the plurality of work items onto the duplicate backup storage medium having different properties as only those files/data which have changed since the previous backup are actually read from the volume and stored on the backup storage means of disk spaces of different network file server which is known to have different properties (e.g. see abstract, column 5, lines 20 et seq.; column 6, lines 20 et seq.);

As per claims 4, 10, 17; copying the subset of the backup data onto at least one duplicate backup storage medium of a different type than the at least one backup storage medium (e.g. see column 6, lines 20 et seq.);

As per claims 5, 11, 18; storing in a logical duplication database a record indicating that the subset of the backup data copied which has been copied to the at least one duplicate backup storage medium (e.g. see column 8, lines 8 et seq.);

Art Unit: 2186

As per claims 6, 12, 19; Whiting discloses wherein the at least one backup storage medium comprises a first backup storage medium including incremental backup data for at least one data item ... as being equivalent to the concept of delta computation wherein differences between file versions are computed so that only the changes to the file need to be written on the backup storage means; noting that Whiting discloses the backup process creates two files containing information about each backup set wherein these files could be combined into a single file (e.g. see column 5, lines 20 et seq.; column 6, lines 25 et seq.; column 8, lines 42 et seq.);

As per claims 21, 32; Whiting discloses wherein the first work item is stored on a single backup storage medium, wherein the backup data further includes a second work item stored in the single backup storage medium, and wherein the method includes a step of not duplicating the second work item onto the duplicate backup medium is equivalently taught as ONLY those files which have changed since the previous backup are actually read from the volume and stored on the backup storage (e.g. see abstract, column 5, lines 7 et seq.);

As per claims 22, 33; Whiting discloses that backup data being stored on the backup storage means of disk spaces of different network file server which is known to have different properties (e.g. see abstract, column 5, lines 20 et seq.; column

Art Unit: 2186

6, lines 20 et seq.);

As per claims 23 and 34; Whiting discloses storing in a logical duplication database a record indicating that the first work item has been copied to the at least one duplicate backup storage means (e.g. see column 8, lines 8 et seq.);

As per claims 25-28; Whiting discloses the invention as claimed, detailed above with respect to claims 20-24; Whiting however does not particularly disclose a computer-readable medium having of instructions to carry out the steps of claims 20-24 to be implemented on a computer as being claimed in claims 25-29. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Whiting's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of Whiting's program on other systems.

Art Unit: 2186

Allowable subject matter

5. Claims 24, 29 and 35 are objected to as being dependent upon a rejected based claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. As per remark, Applicant's counsel asserts that (a) "there is no such disclosure in Whiting, and as discussed below, the technical aspects of performing an increment backup make it impossible to perform that operation from the backup storage medium" (page 12, second paragraph, lines 8-10), and (b) the Office action evidences a misunderstanding of the technical nature of an incremental backup. An incremental backup involves taking a full backup of a particular data source at a given point in time, and then later backing up only the portions of the data source that have changed subsequent to the time when the initial backup was taken. Thus, by definition, the changed data is only found in the data set itself, and is not found on the original backup that was created of the data set. Therefore, an incremental backup simply can not be made by copying data from the previously backed up data set (page 12, fourth paragraph).

With respect to (a); Examiner wholeheartly disagrees with Applicant's counsel, and would like to emphasize that in

Art Unit: 2186

considering a 35 USC 103 rejection, it is not strictly necessary that a reference or references explicitly suggest the claimed invention (this is tantamount to a 35 USC 102 reference if the modifications would have been obvious to those of ordinary skill in the art. With respect to (b) Whiting, as cited previously, clearly discloses the backup methodology wherein ONLY those files which have changed since the previous backup are actually read from the volume and stored on the backup storage (e.g. see abstract, column 5, lines 7 et seq.), wherein it's clearly understood that said backup simply can be made by copying data from the previously backed up data set. As noted, the example or scenarios being illustrated in Applicant's amendment (page 12's last paragraph bridging page 13) for supporting of Applicant's arguments, only applicable to *one of many data backup operations*; for example, when file C is added/written to **the data volume** as in the example illustrated by Applicant's counsel. However, when changes are made to either file A or file B (for example, file A is now became file A' or file B now is now became file B'). In those cases, changes in data must be compared to the backup volume for backing up of only those files that have been changed, NOT the original source; therefore the backing up of incrementally changed data from **a backup storage medium** could have been happened as being detailed previously.

Art Unit: 2186

7. Applicant's arguments filed February 09, 2004 have been fully considered but they are not deemed to be persuasive.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (703) 305-3842. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (703)-305-3821. The fax phone number for the

Application/Control Number: 09/342,453

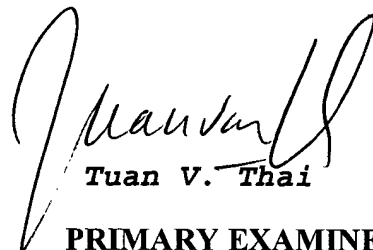
Art Unit: 2186

-
10-

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/April 14, 2004



Tuan V. Thai

PRIMARY EXAMINER

Group 2100